

SEQUENCE LISTING

<110> MCNAGNY, Kelly M.
 ROSKELLEY, Calvin
 MERKENS, Helen
 SOMASIRI, Aruna
 HUNTSMAN, David

<120> METHODS FOR DETECTING AND TREATING CANCER

<130> 7685-102

<140> US 10/560,103

<141> 2004-06-09

<150> US 60/476,622

<151> 2003-06-09

<160> 10

<170> PatentIn version 3.3

<210> 1

<211> 605

<212> PRT

<213> Homo sapiens

<400> 1

Met Gly Arg Leu Leu Arg Ala Ala Arg Leu Pro Pro Leu Leu Ser Pro
 1 5 10 15

Leu Leu Leu Leu Leu Val Gly Gly Ala Phe Leu Gly Ala Cys Val Ala
 20 25 30

Gly Ser Asp Glu Pro Gly Pro Glu Gly Leu Thr Ser Thr Ser Leu Leu
 35 40 45

Asp Leu Leu Leu Pro Thr Gly Leu Glu Pro Leu Asp Ser Glu Glu Pro
 50 55 60

Ser Glu Thr Met Gly Leu Gly Ala Gly Leu Gly Ala Pro Gly Ser Gly
 65 70 75 80

Phe Pro Ser Glu Glu Asn Glu Glu Ser Arg Ile Leu Gln Pro Pro Gln
 85 90 95

Tyr Phe Trp Glu Glu Glu Glu Glu Leu Asn Asp Ser Ser Leu Asp Leu
 100 105 110

Gly Pro Thr Ala Asp Tyr Val Phe Pro Asp Leu Thr Glu Lys Ala Gly
 115 120 125

Ser Ile Glu Asp Thr Ser Gln Ala Gln Glu Leu Pro Asn Leu Pro Ser
 130 135 140

Pro Leu Pro Lys Met Asn Leu Val Glu Pro Pro Trp His Met Pro Pro
 145 150 155 160

Arg Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Arg Glu Lys Glu
 165 170 175

Glu Val Glu Lys Gln Glu Glu Glu Glu Glu Glu Glu Leu Leu Pro Val
 180 185 190

Asn Gly Ser Gln Glu Glu Ala Lys Pro Gln Val Arg Asp Phe Ser Leu
 195 200 205

Thr Ser Ser Ser Gln Thr Pro Gly Ala Thr Lys Ser Arg His Glu Asp
 210 215 220

Ser Gly Asp Gln Ala Ser Ser Gly Val Glu Val Glu Ser Ser Met Gly
 225 230 235 240

Pro Ser Leu Leu Leu Pro Ser Val Thr Pro Thr Thr Val Thr Pro Gly
 245 250 255

Asp Gln Asp Ser Thr Ser Gln Glu Ala Glu Ala Thr Val Leu Pro Ala
 260 265 270

Ala Gly Leu Gly Val Glu Phe Glu Ala Pro Gln Glu Ala Ser Glu Glu
 275 280 285

Ala Thr Ala Gly Ala Ala Gly Leu Ser Gly Gln His Glu Glu Val Pro
 290 295 300

Ala Leu Pro Ser Phe Pro Gln Thr Thr Ala Pro Ser Gly Ala Glu His
 305 310 315 320

Pro Asp Glu Asp Pro Leu Gly Ser Arg Thr Ser Ala Ser Ser Pro Leu
 325 330 335

Ala Pro Gly Asp Met Glu Leu Thr Pro Ser Ser Ala Thr Leu Gly Gln
 340 345 350

Glu Asp Leu Asn Gln Gln Leu Leu Glu Gly Gln Ala Ala Glu Ala Gln
 355 360 365

Ser Arg Ile Pro Trp Asp Ser Thr Gln Val Ile Cys Lys Asp Trp Ser
 370 375 380

Asn Leu Ala Gly Lys Asn Tyr Ile Ile Leu Asn Met Thr Glu Asn Ile
 385 390 395 400

Asp Cys Glu Val Phe Arg Gln His Arg Gly Pro Gln Leu Leu Ala Leu
 405 410 415

Val Glu Glu Val Leu Pro Arg His Gly Ser Gly His His Gly Ala Trp
 420 425 430

His Ile Ser Leu Ser Lys Pro Ser Glu Lys Glu Gln His Leu Leu Met
 435 440 445

Thr Leu Val Gly Glu Gln Gly Val Val Pro Thr Gln Asp Val Leu Ser
 450 455 460

Met Leu Gly Asp Ile Arg Arg Ser Leu Glu Glu Ile Gly Ile Gln Asn
 465 470 475 480

Tyr Ser Thr Thr Ser Ser Cys Gln Ala Arg Ala Ser Gln Val Arg Ser
 485 490 495

Asp Tyr Gly Thr Leu Phe Val Val Leu Val Val Ile Gly Ala Ile Cys
 500 505 510

Ile Ile Ile Ile Ala Leu Gly Leu Leu Tyr Asn Cys Trp Gln Arg Arg
 515 520 525

Leu Pro Lys Leu Lys His Val Ser His Gly Glu Glu Leu Arg Phe Val
 530 535 540

Glu Asn Gly Cys His Asp Asn Pro Thr Leu Asp Val Ala Ser Asp Ser
 545 550 555 560

Gln Ser Glu Met Gln Glu Lys His Pro Ser Leu Asn Gly Gly Gly Ala
 565 570 575

Leu Asn Gly Pro Gly Ser Trp Gly Ala Leu Met Gly Gly Lys Arg Asp
 580 585 590

Pro Glu Asp Ser Asp Val Phe Glu Glu Asp Thr His Leu
 595 600 605

<211> 605
 <212> PRT
 <213> Mus musculus

<400> 2

Met Ala Arg Pro Leu Arg Ala Ala Arg Leu Pro Pro Pro Leu Leu Leu
 1 5 10 15

Leu Leu Ala Ala Gly Ala Ser Leu Gly Ala Tyr Ala Val Gly Val Asp
 20 25 30

Glu Pro Gly Pro Glu Gly Leu Thr Ser Thr Ser Leu Leu Asp Leu Leu
 35 40 45

Leu Pro Thr Asp Phe Glu Pro Leu Asp Ser Glu Glu Pro Ser Glu Ala
 50 55 60

Met Gly Leu Asp Ala Gly Leu Ala Pro Gly Ser Gly Phe Pro Ser Glu
 65 70 75 80

Asp Ser Glu Glu Ser Arg Leu Leu Gln Pro Pro Gln Tyr Phe Trp Glu
 85 90 95

Glu Glu Glu Leu Asn Gly Ser Ser Leu Asp Leu Gly Pro Thr Ala Asp
 100 105 110

Tyr Val Phe Pro Asp Leu Thr Glu Lys Val Ala Ser Met Glu Asp Pro
 115 120 125

Gly Gln Ala Pro Asp Leu Pro Asn Leu Pro Ser Ile Leu Pro Lys Met
 130 135 140

Asp Leu Ala Glu Pro Pro Trp His Met Pro Leu Gln Glu Glu Glu Glu
 145 150 155 160

Glu Glu Glu Glu Glu Glu Glu Glu Arg Glu Glu Glu Glu Arg Glu Lys
 165 170 175

Glu Ala Glu Glu Glu Glu Glu Lys Gly Lys Ser Leu Leu Pro Val Asn
 180 185 190

Arg Val Pro Lys Glu Pro Pro Ala Gln Ala His Ala Pro Ser Pro Ser
 195 200 205

Thr Ser Ser Ser Thr Ser Ser Gln Ser Pro Gly Ala Thr Arg His Arg
 210 215 220

Gln Glu Asp Ser Gly Asp Gln Ala Thr Ser Gly Met Glu Val Glu Ser
225 230 235 240

Ser Val Lys Pro Thr Leu Ser Val Pro Ser Val Thr Pro Ser Thr Val
245 250 255

Ala Pro Gly Val Gln Asn Tyr Ser Gln Glu Ser Gly Gly Thr Glu Trp
260 265 270

Pro Thr Gly Gly Leu Gly Val Gln Ser Glu Val Pro Gln Gly Ala Gly
275 280 285

Glu Gly Ala Thr Val Gly Ala Ala Asp Phe Asp Gly Gln Gln Gly Ala
290 295 300

Leu Pro Ser Ser Ser Leu Pro Gln Thr Val Pro Pro Ser Gly Thr Glu
305 310 315 320

Val Pro Ser Glu Gly Pro Leu Tyr Pro Arg Ile Pro Asp Ser Leu Pro
325 330 335

Pro Gly Pro Gln Asp Thr Glu Ser Thr Pro Ser Ser Ala Thr Trp Gly
340 345 350

Gln Glu Gly Leu Ser Glu Gln Pro Leu Glu Gly Gln Ala Ala Glu Ala
355 360 365

His Ser Leu Thr Pro Trp Asp Ser Thr Gln Val Ile Cys Lys Asp Trp
370 375 380

Ser Asn Leu Ala Gly Lys Ser Tyr Ile Ile Leu Asn Met Thr Glu Asn
385 390 395 400

Ile Asp Cys Glu Val Phe Arg Arg His Arg Gly Leu Arg Leu Leu Ala
405 410 415

Leu Val Glu Glu Val Leu Pro Arg His Arg Ser Gly His Arg Gly Asp
420 425 430

Trp His Ile Ser Leu Ser Lys Pro Ser Glu Lys Glu Gln His Leu Leu
435 440 445

Met Thr Leu Val Gly Glu Gln Gly Val Val Pro Thr Gln Asp Val Leu
450 455 460

Ser Met Leu Ser Gly Ile Arg Arg Ser Leu Glu Glu Ile Gly Ile Gln
 465 470 475 480

Asn Tyr Ser Thr Thr Ser Ser Cys Gln Ala Arg Ala Thr Gln Val Arg
 485 490 495

Ser Asp Tyr Gly Thr Leu Phe Val Val Leu Val Ile Ile Gly Val Ile
 500 505 510

Cys Phe Ile Ile Ile Val Leu Gly Leu Leu Tyr Asn Cys Trp Gln Arg
 515 520 525

Arg Met Pro Lys Leu Lys His Val Ser His Gly Glu Glu Leu Arg Phe
 530 535 540

Val Glu Asn Gly Cys His Asp Asn Pro Thr Leu Asp Val Ala Ser Asp
 545 550 555 560

Ser Gln Ser Glu Met Gln Glu Lys Gln Pro Ser Leu Asn Gly Gly Ala
 565 570 575

Ile Asn Gly Pro Ser Ser Trp Ser Ala Leu Met Gly Ser Lys Arg Asp
 580 585 590

Pro Glu Asp Ser Asp Val Phe Glu Glu Asp Thr His Leu
 595 600 605

<210> 3
 <211> 528
 <212> PRT
 <213> Homo sapiens

<400> 3

Met Arg Cys Ala Leu Ala Leu Ser Ala Leu Leu Leu Leu Ser Thr
 1 5 10 15

Pro Pro Leu Leu Pro Ser Ser Pro Ser Pro Ser Pro Ser Pro Ser Pro
 20 25 30

Ser Gln Asn Ala Thr Gln Thr Thr Thr Asp Ser Ser Asn Lys Thr Ala
 35 40 45

Pro Thr Pro Ala Ser Ser Val Thr Ile Met Ala Thr Asp Thr Ala Gln
 50 55 60

Gln Ser Thr Val Pro Thr Ser Lys Ala Asn Glu Ile Leu Ala Ser Val
65 70 75 80

Lys Ala Thr Thr Leu Gly Val Ser Ser Asp Ser Pro Gly Thr Thr Thr
85 90 95

Leu Ala Gln Gln Val Ser Gly Pro Val Asn Thr Thr Val Ala Arg Gly
100 105 110

Gly Gly Ser Gly Asn Pro Thr Thr Thr Ile Glu Ser Pro Lys Ser Thr
115 120 125

Lys Ser Ala Asp Thr Thr Thr Val Ala Thr Ser Thr Ala Thr Ala Lys
130 135 140

Pro Asn Thr Thr Ser Ser Gln Asn Gly Ala Glu Asp Thr Thr Asn Ser
145 150 155 160

Gly Gly Lys Ser Ser His Ser Val Thr Thr Asp Leu Thr Ser Thr Lys
165 170 175

Ala Glu His Leu Thr Thr Pro His Pro Thr Ser Pro Leu Ser Pro Arg
180 185 190

Gln Pro Thr Leu Thr His Pro Val Ala Thr Pro Thr Ser Ser Gly His
195 200 205

Asp His Leu Met Lys Ile Ser Ser Ser Ser Ser Thr Val Ala Ile Pro
210 215 220

Gly Tyr Thr Phe Thr Ser Pro Gly Met Thr Thr Thr Leu Pro Ser Ser
225 230 235 240

Val Ile Ser Gln Arg Thr Gln Gln Thr Ser Ser Gln Met Pro Ala Ser
245 250 255

Ser Thr Ala Pro Ser Ser Gln Glu Thr Val Gln Pro Thr Ser Pro Ala
260 265 270

Thr Ala Leu Arg Thr Pro Thr Leu Pro Glu Thr Met Ser Ser Ser Pro
275 280 285

Thr Ala Ala Ser Thr Thr His Arg Tyr Pro Lys Thr Pro Ser Pro Thr
290 295 300

Val Ala His Glu Ser Asn Trp Ala Lys Cys Glu Asp Leu Glu Thr Gln

305		310		315		320									
Thr	Gln	Ser	Glu	Lys	Gln	Leu	Val	Leu	Asn	Leu	Thr	Gly	Asn	Thr	Leu
				325					330					335	
Cys	Ala	Gly	Gly	Ala	Ser	Asp	Glu	Lys	Leu	Ile	Ser	Leu	Ile	Cys	Arg
			340					345					350		
Ala	Val	Lys	Ala	Thr	Phe	Asn	Pro	Ala	Gln	Asp	Lys	Cys	Gly	Ile	Arg
		355					360					365			
Leu	Ala	Ser	Val	Pro	Gly	Ser	Gln	Thr	Val	Val	Val	Lys	Glu	Ile	Thr
	370					375					380				
Ile	His	Thr	Lys	Leu	Pro	Ala	Lys	Asp	Val	Tyr	Glu	Arg	Leu	Lys	Asp
385					390					395					400
Lys	Trp	Asp	Glu	Leu	Lys	Glu	Ala	Gly	Val	Ser	Asp	Met	Lys	Leu	Gly
				405					410					415	
Asp	Gln	Gly	Pro	Pro	Glu	Glu	Ala	Glu	Asp	Arg	Phe	Ser	Met	Pro	Leu
			420					425					430		
Ile	Ile	Thr	Ile	Val	Cys	Met	Ala	Ser	Phe	Leu	Leu	Leu	Val	Ala	Ala
		435					440					445			
Leu	Tyr	Gly	Cys	Cys	His	Gln	Arg	Leu	Ser	Gln	Arg	Lys	Asp	Gln	Gln
	450					455					460				
Arg	Leu	Thr	Glu	Glu	Leu	Gln	Thr	Val	Glu	Asn	Gly	Tyr	His	Asp	Asn
465					470					475					480
Pro	Thr	Leu	Glu	Val	Met	Glu	Thr	Ser	Ser	Glu	Met	Gln	Glu	Lys	Lys
				485					490					495	
Val	Val	Ser	Leu	Asn	Gly	Glu	Leu	Gly	Asp	Ser	Trp	Ile	Val	Pro	Leu
			500					505					510		
Asp	Asn	Leu	Thr	Lys	Asp	Asp	Leu	Asp	Glu	Glu	Glu	Asp	Thr	His	Leu
		515					520					525			

<210> 4
 <211> 503
 <212> PRT
 <213> Mus musculus
 <400> 4

Met Pro Pro Thr Thr Ala Leu Ser Ala Leu Leu Leu Leu Leu Leu Ser
1 5 10 15

Pro Ala Ser His Ser His Asn Gly Asn Glu Thr Ser Thr Ser Ala Ile
20 25 30

Lys Ser Ser Thr Val Gln Ser His Gln Ser Ala Thr Thr Ser Thr Glu
35 40 45

Val Thr Thr Gly His Pro Val Ala Ser Thr Leu Ala Ser Thr Gln Pro
50 55 60

Ser Asn Pro Thr Pro Phe Thr Thr Ser Thr Gln Ser Pro Ser Met Pro
65 70 75 80

Thr Ser Thr Pro Asn Pro Thr Ser Asn Gln Ser Gly Gly Asn Leu Thr
85 90 95

Ser Ser Val Ser Glu Val Asp Lys Thr Lys Thr Ser Ser Pro Ser Ser
100 105 110

Thr Ala Phe Thr Ser Ser Ser Gly Gln Thr Ala Ser Ser Gly Gly Lys
115 120 125

Ser Gly Asp Ser Phe Thr Thr Ala Pro Thr Thr Thr Leu Gly Leu Ile
130 135 140

Asn Val Ser Ser Gln Pro Thr Asp Leu Asn Thr Thr Ser Lys Leu Leu
145 150 155 160

Ser Thr Pro Thr Thr Asp Asn Thr Thr Ser Pro Gln Gln Pro Val Asp
165 170 175

Ser Ser Pro Ser Thr Ala Ser His Pro Val Gly Gln His Thr Pro Ala
180 185 190

Ala Val Pro Ser Ser Ser Gly Ser Thr Pro Ser Thr Asp Asn Ser Thr
195 200 205

Leu Thr Trp Lys Pro Thr Thr His Lys Pro Leu Gly Thr Ser Glu Ala
210 215 220

Thr Gln Pro Leu Thr Ser Gln Thr Pro Gly Ile Thr Thr Leu Pro Val
225 230 235 240

Ser Thr Leu Gln Gln Ser Met Ala Ser Thr Val Gly Thr Thr Thr Glu
 245 250 255
 Glu Phe Thr His Leu Ile Ser Asn Gly Thr Pro Val Ala Pro Pro Gly
 260 265 270
 Pro Ser Thr Pro Ser Pro Ile Trp Ala Phe Gly Asn Tyr Gln Leu Asn
 275 280 285
 Cys Glu Pro Pro Ile Arg Pro Asp Glu Glu Leu Leu Ile Leu Asn Leu
 290 295 300
 Thr Arg Ala Ser Leu Cys Glu Arg Ser Pro Leu Asp Glu Lys Glu Lys
 305 310 315 320
 Leu Val Glu Leu Leu Cys His Ser Val Lys Ala Ser Phe Lys Pro Ala
 325 330 335
 Glu Asp Leu Cys Thr Leu His Val Ala Pro Ile Leu Asp Asn Gln Ala
 340 345 350
 Val Ala Val Lys Arg Ile Ile Ile Glu Thr Lys Leu Ser Pro Lys Ala
 355 360 365
 Val Tyr Glu Leu Leu Lys Asp Arg Trp Asp Asp Leu Thr Glu Ala Gly
 370 375 380
 Val Ser Asp Met Lys Leu Gly Lys Glu Gly Pro Pro Glu Val Asn Glu
 385 390 395 400
 Asp Arg Phe Ser Leu Pro Leu Ile Ile Thr Ile Val Cys Met Ala Ser
 405 410 415
 Phe Leu Leu Leu Val Ala Ala Leu Tyr Gly Cys Cys His Gln Arg Ile
 420 425 430
 Ser Gln Arg Lys Asp Gln Gln Arg Leu Thr Glu Glu Leu Gln Thr Val
 435 440 445
 Glu Asn Gly Tyr His Asp Asn Pro Thr Leu Glu Val Met Glu Thr Pro
 450 455 460
 Ser Glu Met Gln Glu Lys Lys Val Val Asn Leu Asn Gly Glu Leu Gly
 465 470 475 480
 Asp Ser Trp Ile Val Pro Leu Asp Asn Leu Thr Lys Asp Asp Leu Asp

485

490

495

Glu Glu Glu Asp Thr His Leu
500

<210> 5
<211> 373
<212> PRT
<213> Homo sapiens

<400> 5

Met Pro Arg Gly Trp Thr Ala Leu Cys Leu Leu Ser Leu Leu Pro Ser
1 5 10 15

Gly Phe Met Ser Leu Asp Asn Asn Gly Thr Ala Thr Pro Glu Leu Pro
20 25 30

Thr Gln Gly Thr Phe Ser Asn Val Ser Thr Asn Val Ser Tyr Gln Glu
35 40 45

Thr Thr Thr Pro Ser Thr Leu Gly Ser Thr Ser Leu His Pro Val Ser
50 55 60

Gln His Gly Asn Glu Ala Thr Thr Asn Ile Thr Glu Thr Thr Val Lys
65 70 75 80

Phe Thr Ser Thr Ser Val Ile Thr Ser Val Tyr Gly Asn Thr Asn Ser
85 90 95

Ser Val Gln Ser Gln Thr Ser Val Ile Ser Thr Val Phe Thr Thr Pro
100 105 110

Ala Asn Val Ser Thr Pro Glu Thr Thr Leu Lys Pro Ser Leu Ser Pro
115 120 125

Gly Asn Val Ser Asp Leu Ser Thr Thr Ser Thr Ser Leu Ala Thr Ser
130 135 140

Pro Thr Lys Pro Tyr Thr Ser Ser Ser Pro Ile Leu Ser Asp Ile Lys
145 150 155 160

Ala Glu Ile Lys Cys Ser Gly Ile Arg Glu Val Lys Leu Thr Gln Gly
165 170 175

Ile Cys Leu Glu Gln Asn Lys Thr Ser Ser Cys Ala Glu Phe Lys Lys
180 185 190

Asp Arg Gly Glu Gly Leu Ala Arg Val Leu Cys Gly Glu Glu Gln Ala
 195 200 205

Asp Ala Asp Ala Gly Ala Gln Val Cys Ser Leu Leu Leu Ala Gln Ser
 210 215 220

Glu Val Arg Pro Gln Cys Leu Leu Leu Val Leu Ala Asn Arg Thr Glu
 225 230 235 240

Ile Ser Ser Lys Leu Gln Leu Met Lys Lys His Gln Ser Asp Leu Lys
 245 250 255

Lys Leu Gly Ile Leu Asp Phe Thr Glu Gln Asp Val Ala Ser His Gln
 260 265 270

Ser Tyr Ser Gln Lys Thr Leu Ile Ala Leu Val Thr Ser Gly Ala Leu
 275 280 285

Leu Ala Val Leu Gly Ile Thr Gly Tyr Phe Leu Met Asn Arg Arg Ser
 290 295 300

Trp Ser Pro Thr Gly Glu Arg Leu Gly Glu Asp Pro Tyr Tyr Thr Glu
 305 310 315 320

Asn Gly Gly Gly Gln Gly Tyr Ser Ser Gly Pro Gly Thr Ser Pro Glu
 325 330 335

Ala Gln Gly Lys Ala Ser Val Asn Arg Gly Ala Gln Lys Asn Gly Thr
 340 345 350

Gly Gln Ala Thr Ser Arg Asn Gly His Ser Ala Arg Gln His Val Val
 355 360 365

Ala Asp Thr Glu Leu
 370

<210> 6
 <211> 382
 <212> PRT
 <213> Mus musculus

<400> 6

Met Gln Val His Arg Asp Thr Arg Ala Gly Leu Leu Leu Pro Trp Arg
 1 5 10 15

Trp Val Ala Leu Cys Leu Met Ser Leu Leu His Leu Asn Asn Leu Thr
 20 25 30

Ser Ala Thr Thr Glu Thr Ser Thr Gln Gly Ile Ser Pro Ser Val Pro
 35 40 45

Thr Asn Glu Ser Val Glu Glu Asn Ile Thr Ser Ser Ile Pro Gly Ser
 50 55 60

Thr Ser His Tyr Leu Ile Tyr Gln Asp Ser Ser Lys Thr Thr Pro Ala
 65 70 75 80

Ile Ser Glu Thr Met Val Asn Phe Thr Val Thr Ser Gly Ile Pro Ser
 85 90 95

Gly Ser Gly Thr Pro His Thr Phe Ser Gln Pro Gln Thr Ser Pro Thr
 100 105 110

Gly Ile Leu Pro Thr Thr Ser Asp Ser Ile Ser Thr Ser Glu Met Thr
 115 120 125

Trp Lys Ser Ser Leu Pro Ser Ile Asn Val Ser Asp Tyr Ser Pro Asn
 130 135 140

Asn Ser Ser Phe Glu Met Thr Ser Pro Thr Glu Pro Tyr Ala Tyr Thr
 145 150 155 160

Ser Ser Ser Ala Pro Ser Ala Ile Lys Gly Glu Ile Lys Cys Ser Gly
 165 170 175

Ile Arg Glu Val Arg Leu Ala Gln Gly Ile Cys Leu Glu Leu Ser Glu
 180 185 190

Ala Ser Ser Cys Glu Glu Phe Lys Lys Glu Lys Gly Glu Asp Leu Ile
 195 200 205

Gln Ile Leu Cys Glu Lys Glu Glu Ala Glu Ala Asp Ala Gly Ala Ser
 210 215 220

Val Cys Ser Leu Leu Leu Ala Gln Ser Glu Val Arg Pro Glu Cys Leu
 225 230 235 240

Leu Met Val Leu Ala Asn Ser Thr Glu Leu Pro Ser Lys Leu Gln Leu
 245 250 255

Met Glu Lys His Gln Ser Asp Leu Arg Lys Leu Gly Ile Gln Ser Phe

260	265	270
Asn Lys Gln Asp Ile Gly Ser His Gln Ser Tyr Ser Arg Lys Thr Leu		
275	280	285
Ile Ala Leu Val Thr Ser Gly Val Leu Leu Ala Ile Leu Gly Thr Thr		
290	295	300
Gly Tyr Phe Leu Met Asn Arg Arg Ser Trp Ser Pro Thr Gly Glu Arg		
305	310	315
Leu Gly Glu Asp Pro Tyr Tyr Thr Glu Asn Gly Gly Gly Gln Gly Tyr		
	325	330
Ser Ser Gly Pro Gly Ala Ser Pro Glu Thr Gln Gly Lys Ala Asn Val		
	340	345
Thr Arg Gly Ala Gln Glu Asn Gly Thr Gly Gln Ala Thr Ser Arg Asn		
	355	360
Gly His Ser Ala Arg Gln His Val Val Ala Asp Thr Glu Leu		
	370	375
<210> 7		
<211> 104		
<212> PRT		
<213> Mus musculus		
<400> 7		
Glu Asp Arg Phe Ser Leu Pro Leu Ile Ile Thr Ile Val Cys Met Ala		
1	5	10
Ser Phe Leu Leu Leu Val Ala Ala Leu Tyr Gly Cys Cys His Gln Arg		
	20	25
Ile Ser Gln Arg Lys Asp Gln Gln Arg Leu Thr Glu Glu Leu Gln Thr		
	35	40
Val Glu Asn Gly Tyr His Asp Asn Pro Thr Leu Glu Val Met Glu Thr		
	50	55
Pro Ser Glu Met Gln Glu Lys Lys Val Val Asn Leu Asn Gly Glu Leu		
65	70	75
Gly Asp Ser Trp Ile Val Pro Leu Asp Asn Leu Thr Lys Asp Asp Leu		
	85	90
		95

Asp Glu Glu Glu Asp Thr His Leu
100

<210> 8
<211> 110
<212> PRT
<213> Mus musculus

<400> 8

Arg Ser Asp Tyr Gly Thr Leu Phe Val Val Leu Val Ile Ile Gly Val
1 5 10 15

Ile Cys Phe Ile Ile Ile Val Leu Gly Leu Leu Tyr Asn Cys Trp Gln
20 25 30

Arg Arg Met Pro Lys Leu Lys His Val Ser His Gly Glu Glu Leu Arg
35 40 45

Phe Val Glu Asn Gly Cys His Asp Asn Pro Thr Leu Asp Val Ala Ser
50 55 60

Asp Ser Gln Ser Glu Met Gln Glu Lys Gln Pro Ser Leu Asn Gly Gly
65 70 75 80

Ala Ile Asn Gly Pro Ser Ser Trp Ser Ala Leu Met Gly Ser Lys Arg
85 90 95

Asp Pro Glu Asp Ser Asp Val Phe Glu Glu Asp Thr His Leu
100 105 110

<210> 9
<211> 109
<212> PRT
<213> Mus musculus

<400> 9

Lys Gln Asp Ile Gly Ser His Gln Ser Tyr Ser Arg Lys Thr Leu Ile
1 5 10 15

Ala Leu Val Thr Ser Gly Val Leu Leu Ala Ile Leu Gly Thr Thr Gly
20 25 30

Tyr Phe Leu Met Asn Arg Arg Ser Trp Ser Pro Thr Gly Glu Arg Leu
35 40 45

Gly Glu Asp Pro Tyr Tyr Thr Glu Asn Gly Gly Gly Gln Gly Tyr Ser

50

55

60

Ser Gly Pro Gly Ala Ser Pro Glu Thr Gln Gly Lys Ala Asn Val Thr
 65 70 75 80

Arg Gly Ala Gln Glu Asn Gly Thr Gly Gln Ala Thr Ser Arg Asn Gly
 85 90 95

His Ser Ala Arg Gln His Val Val Ala Asp Thr Glu Leu
 100 105

<210> 10

<211> 38

<212> PRT

<213> Mus musculus

<400> 10

Val Ala Ser Met Glu Asp Pro Gly Gln Ala Pro Asp Leu Pro Asn Leu
 1 5 10 15

Pro Ser Ile Leu Pro Lys Met Asp Leu Ala Glu Pro Pro Trp His Met
 20 25 30

Pro Leu Gln Gly Gly Cys
 35